

PTO/PCT Rec'd 22 AUG 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#3

Applicants: Michael KNEPPER et al

Serial No.: 09/831,377

Filed: August 22, 2001

For: USE OF ZINC ALLOYS

**RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS**  
**UNDER 35 U.S.C. 371**

Box PCT  
Assistant Commissioner of Patents  
Washington, D.C. 20231

**Attention: APPLICATION BRANCH**  
**MISSING REQUIREMENTS OF APPLICATION**

Sir:

With respect to the above-identified national phase application, the following are filed herewith in response to the Notification of Missing Requirements under 35 U.S.C. 371, mailed June 22, 2001, copy attached.

- X Declaration in compliance with 37 C.F.R. §1.63.
- X Information Disclosure Statement.
- X Assignment document with Cover Sheet and \$40.00 fee for Recordation of Assignment.

It has been indicated on the Notice that Claim 1 under Article 34 has not been entered and that a fee of \$270.00 for multiply dependent claim(s) is required.

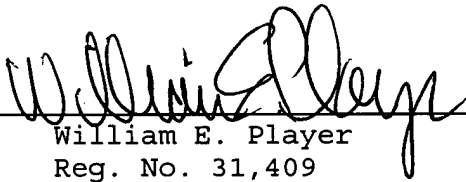
However, Applicant respectfully submits herewith the International Preliminary Examination Report (IPER) in which it is indicated that the single claim filed on December 8, 2000, replaces the four claims originally filed. Therefore, only the single amended claim should be considered in this application and, consequently, no fee for multiply dependent claim(s) is now required.

Serial No.: 09/831,377

X If a Petition for Extension of time is necessary and the Petition and/or the check is not enclosed, this will act as the Petition and applicant herewith petitions the Commissioner to extend the time for response and charge and fees necessary under 37 CFR 1.17 (a) - (d) to Deposit Account No. 06-1358. The Commissioner is also authorized to charge payment of any other additional fees associated with this communication or credit any overpayment to Deposit Account No. 06-1358. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By   
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Atty. Docket: P66680US0  
Date: August 22, 2001  
WEP:jrc

## PATENT COOPERATION TREATY

**PCT**  
**NOTIFICATION OF TRANSMITTAL**  
**OF COPIES OF TRANSLATION**  
**OF THE INTERNATIONAL PRELIMINARY**  
**EXAMINATION REPORT**

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

WERNER, Hans-Karsten

Postfach 10 22 41

D-50462 Köln

ALLEMAGNE

Avk	Sg	W	Da	Hi	HP	ME	W	KE
18 JUNI 2001								
K. R. EDV adles ch. H.								

<b>Date of mailing (day/month/year)</b> 06 June 2001 (06.06.01)	<b>IMPORTANT NOTIFICATION</b>
<b>Applicant's or agent's file reference</b> 99239Iwo W/hg	
<b>International application No.</b> PCT/EP99/08664	<b>International filing date (day/month/year)</b> 11 November 1999 (11.11.99)
<b>Applicant</b> GRILLO-WERKE AG et al	

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

**2. Transmittal of the copy of the translation to the elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

PL,US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

EP,SI

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
 34, chemin des Colombettes  
 1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Zakaria EL KHODARY

Telephone No. (41-22) 338.83.38

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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#3

Applicant's or agent's file reference 99239lwo W/hg	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP99/08664	International filing date (day/month/year) 11 November 1999 (11.11.99)	Priority date (day/month/year) 17 November 1998 (17.11.98)
International Patent Classification (IPC) or national classification and IPC C22C 18/04,		
Applicant GRILLO-WERKE AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 06 June 2000 (06.06.00)	Date of completion of this report 13 March 2001 (13.03.2001)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

- ☒ the international application as originally filed.
- ☒ the description, pages 1-5, as originally filed,  
pages \_\_\_\_\_, filed with the demand,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the claims, Nos. \_\_\_\_\_, as originally filed,  
Nos. \_\_\_\_\_, as amended under Article 19,  
Nos. \_\_\_\_\_, filed with the demand,  
Nos. 1, filed with the letter of 08 December 2000 (08.12.2000),  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☐ the drawings, sheets/fig \_\_\_\_\_, as originally filed,  
sheets/fig \_\_\_\_\_, filed with the demand,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 99/08664

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1	YES
	Claims		NO
Inventive step (IS)	Claims	1	YES
	Claims		NO
Industrial applicability (IA)	Claims	1	YES
	Claims		NO

### 2. Citations and explanations

This report makes reference to the following documents:

**D1:** S.W.K. MORGAN: "Zinc and its alloys and compounds", 1985, pages 175-176

**D2:** PATENT ABSTRACTS OF JAPAN, Vol. 1998, No. 14, 1998-12-31 & JP-A-10 237 613 & DATABASE WPI S. Ch, W.9846 Derwent Publications Ltd, London, GB; Class M, page 13-A, AN 1998-537918

**D5:** DE-A-30-07-850 (mentioned in the application)

**D6:** DE-C-715 511

- The composition as per Claim 1 is not known from the cited prior art. Claim 1 therefore meets the requirements of PCT Article 33(2).

The known alloy according to DIN 17770 (i.e. titanium zinc), which is used in practice as "constructional zinc", differs from the claimed alloy. Zinc alloys comprising 2-20% Al and, optionally, 0.001-2% Ti are known to be used as galvanizing alloys.

The alloys designated "superplastic zinc" in D1,

which may be used as strips or sheets, contain  $\geq 20\%$  Al.

2. D6, in particular page 2, left-hand column, line 10 to right-hand column, line 57, represents the closest prior art.

D6 describes (left-hand column, "B") an alloy in the form of sheets or strips for deep-drawing purposes, comprising:

10-15% Al

0.0-1.0% Cu, and

50-100 ppm Mg, zinc residue (99.99%).

The alloy as per Claim 1 differs from D6 in the proportion of Mg and the proportions of C, V and Si.

Although D6 contains a specific teaching on the relation between the magnesium admixture and high corrosion resistance (page 2, left-hand column, lines 10-15 and 26-35), the recommended amounts of Mg lie outside the claimed range. However, D6 contains no suggestion of a presumed addition of C, V, Si or Ni.

3. The claimed use in the form of "strips and sheets produced by casting and rolling" excludes the use of coating processes and the products thereof (e.g. steel plates or sheets coated with similar Zn-Al alloys for constructional purposes: **D2**). This comment also applies to mechanically plated products: for example, the known products and the process and use disclosed by **D5**. However, D1, D2 and D5 mention different compositions from those

claimed in Claim 1.

4. The problem addressed by the present application consists in producing a corrosion-resistant product. Comparison of the subject matter of Claim 1 with the previously known teaching shows that the composition of the claimed alloy represents a novel choice of use.

The claimed combination of constituents has not previously been disclosed in the prior art. The selected range appears to be "specific".

Claim 1 therefore meets the requirements of PCT Article 33(2) and (3).



**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

1. Pursuant to PCT Rule 5.1(a)(iii), the description should be brought into line with the claims.
2. Pursuant to PCT Rule 5.1(a)(ii), the description should have cited D6 and briefly outlined the relevant prior art disclosed therein.
3. The number of patent DE 17 58 498 (page 1, paragraph 2) is presumably incorrect.

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

## Clarity:

1. The application does not meet the requirements of PCT Article 6 because Claim 1 has not been drafted in the most expedient way: in Claim 1 no residue (i.e. "Zn residue") is defined and consequently the alloy cannot be interpreted as a zinc base alloy.
2. In the present form of the application the constituents **In**, **Ca** or **Mn** should be considered "optional constituents" (i.e. non-compulsory) and therefore as not entering into the sum of the constituents: the expression "sowie gegebenenfalls" ("and optionally") includes elements that may be absent, that is, "sowie ggf." ("and optionally") describes an optional feature.

Further, the elements C, V, Si and Ni and the impurities Cu and Fe are mentioned in Claim 1 after the term "sowie" ("and"). It is therefore unclear whether these elements are qualified by the expression "and optionally" or should be considered controlled and necessary constituents of the claimed alloy.

3. The statement in accordance with PCT Rule 66.2(a)(ii) is made here on the assumption that in Claim 1 the elements C, V and Si are present (necessary elements), Ni is optional (Claim 1: "and/or") and the impurities Cu and Fe are deliberately controlled.